CIBC PRIVATE WEALTH

THE STAN CLARK FINANCIAL TEAM'S

PERSPECTIVES

IN THIS ISSUE:

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STAN CLARK
Senior Wealth Advisor

In this issue I discuss the *cluster illusion*, humans' tendency to look for patterns – and how it may mislead investors into making unwise decisions. Examining *risk* and *volatility* in investing, Michael Chu finds that the terms have very different meanings. Elaine Loo looks to history for answers about putting money into stocks versus bonds. And Tom Cowans advises young members of the workforce, even with retirement being a long way off, to start preparing for it now. Their future selves will thank them!

Stan

Stan Clark is a Portfolio Manager and Senior Wealth Advisor for The Stan Clark Financial Team at CIBC Wood Gundy. Stan has direct responsibility for the team and oversees all areas of financial planning, investment selection and investment management.

Behavioral Finance

THE CLUSTER ILLUSION – SEEING TRENDS WHERE THERE ARE NONE

By Stan Clark, Senior Wealth Advisor

Humans try to create order from chaos. We take raw nature and spawn civilizations. We take myriad, sometimes baffling, observations from the natural world and turn them into orderly scientific laws and theories.

As I've mentioned before in my behavioral finance articles, humans are also subject to a collection of cognitive biases. These biases help us make sense of the world. But the same biases can drastically affect our success in certain areas, such as finance and investing.

In this issue, I'd like to discuss one such cognitive bias that is ingrained in human psychology: *the cluster illusion*.

The cluster illusion is a tendency to see meaningful patterns in a random jumble of information. For example, if you were to flip a coin and have 10 heads turn up in a row, you might think the coin is biased. Most likely it is not. In fact, if you were to flip that coin 1,000 times, the odds of getting 10 or more heads in a row at some point are a surprising 62%.

Seeing patterns where none really exist can be problematic for investors. The reason: You could interpret a cluster of strong returns as a trend when, in truth, the cluster is just part of the normal variation of returns.

The cluster illusion creates traps for investors. Short-term performance data, whether from a few months or a few years, may persuade us to emphasize a particular class of investments, such as stocks, bonds or real estate. The data may influence our investing style, for example, small-cap versus large-cap, or *growth investing*, versus *value investing*. Such data can even persuade us that a particular money manager is an infallible genius, when that manager's results may just come down to pure luck.

A winning streak may indicate our selection strategy is sound – but the streak may also be no more than a statistical anomaly. In fact, streaks of extra good or extra poor performance lasting three to five years are not unusual in the stock market. But we get fooled by the cluster illusion because the illusion jives so well with our intuition – and intuition, as we know, can mislead us.

It is true that many things experience short, intense cycles. But it's also true that, over longer periods, they tend to regress to the mean. A stock may have a long-term record of good returns, but go through a period of lower returns. That doesn't mean the stock will give a poor return going forward. In fact, the case would likely be just the opposite: It's an even better time to invest in the stock after the lower-return period. In business and economics, to see the real trends you often have to look at 10-, 20- or 50-year periods.

What else can you do to overcome the cluster illusion? Here are a few suggestions:

- Don't place too much emphasis on short-term performance, whether positive or negative. Remember, hot and cold streaks lasting three to five years are common.
- Don't rely on your intuition to guide you when choosing stocks. Instead, use fact-based rules and disciplined strategies to overcome cognitive biases like the cluster illusion.

TEAM TALK

Anna Mercado
Administrative Assistant

Welcome to the Team, Anna!

I started working for CIBC Wood Gundy in March 2022. When the opportunity to work with the Stan Clark Financial Team became available I was ecstatic and jumped at the offer. The team has so much experience and knowledge.

Where did you grow up?

I was born and lived in Vancouver until 1991 when my family moved to Port Coquitlam. I haven't left since. My children go to the same schools I went to growing up and even had some of the same teachers. Port Coquitlam has grown significantly in the last 30 years but I love the community, and all the parks and trails to explore.

What are your favourite activities?

On quiet days I love curling up with a blanket and a good book. I'm an avid reader, mostly thriller and horror (Stephen King being my favourite author) however I always enjoy reading things that have been recommended to me. Any suggestions? If I'm not keeping busy with my children's activities, you can find me either on the back of a motorcycle or off roading on a new trail we've discovered.

May 2020, family BBQ in Poco

- Don't attempt to time the market. If you do, your intuition will lead you to want to buy more stocks after they've done well for a few years, and to sell stocks after they've done poorly for a similar period. The right thing to do is usually just the opposite.
- And finally, try not to look at the prices of your stocks too often. The more often you look at them, the more likely you will perceive trends that don't really exist.

Asset allocation

VOLATILITY IS NOT THE SAME AS RISK

By Michael Chu, Senior Wealth Advisor

A big part of investing is balancing risk and return. We'd all like to maximize returns, but what amount of risk are we willing to accept? First, let's take a closer look at what *risk* is. Does it mean the same as *volatility*? The Stan Clark Financial Team believes risk and volatility are not the same. I'll explain why.

The stock market is volatile, to the point where at times it can be uncomfortable. So why don't we just avoid all the volatility by putting everything into bonds? Well, as you'll see in the table below, the average return from bonds over the last 152 years is only 4.5%. What's worse, this only works out to a paltry 2.4% after inflation. Bonds, while less volatile, barely keep up with inflation.

Now let's look at the stock market. Stock returns have averaged 9.5%, which works out to 7.4% after inflation. Again looking at the table below, the average real returns from stocks are three times higher than those of bonds. Yet stocks appear to be riskier than bonds. It seems the tradeoff is that, if you want higher returns, they come with more risk.

However, as noted, we view volatility as being different than risk. You'll see the difference especially when looking at longer time periods. Volatility is just the ups and downs, which, while uncomfortable, eventually cancel out. Risk, on the other hand, is a permanent loss – the worst type of loss, because you can't recover from it. As an example, say you suddenly need all your money. You are forced to sell your stocks at a low. We want to avoid such situations – but we still want higher returns.

One way to evaluate risk is to look at the after-inflation, worst-case scenarios. As you can see from the table, over one-year periods stocks can lose a lot more than bonds. In the worst case, stocks lose 35%. In the worst year for bonds, the drop is only 14%.

Interestingly, the chance of losing money in one-year periods between stocks and bonds is about the same: About a third of the time you should expect losses with either.

But, as we increase the number of years you are investing, the risks change. They become more in favour of stocks, less in favour of bonds.

At 10-year periods (see table), the worst-case scenario for stocks and bonds is about the same, with each down about 30%. Compared to one-year periods, this scenario is better for stocks and worse for bonds. The chance of losing money changes, too. Now stocks only lose 6% of the time, whereas bonds still lose about 25% of the time.

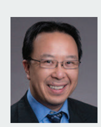
At 20-year periods, the worst case for stocks is actually a *profit* of about 13%. But for bonds the worst case stays about the same, at a loss of about 30%. Furthermore, the chance of losing with stocks becomes 0%. In other words, stocks have never been unprofitable over 20-year periods. Bonds, supposedly the "safe" investment, still lose about 15% of the time.

Here are some explanations of why this happens.

Most of short-term stock market volatility is caused by investor psychology. This cycle of investor optimism and pessimism tends to cancel out, resulting in less risk for stocks over time. The real source of stock market returns is company profits, which for the economy as a whole tend to be quite persistent. As company profits accumulate over time, they come to dominate the numbers, resulting in positive long-term returns – even if the end point is in a down period.

In contrast, with bonds the main risk is inflation eating away at low returns. When you lose to inflation, it's a permanent loss; there's no recovery.

To summarize, in the short term, the risks and volatility appear to be higher for stocks and lower for bonds. If you need your money soon, we believe you should have it invested mostly in bonds to help minimize risk. But in the long term, it's the opposite: Risks and volatility appear to be lower for stocks and higher for bonds. If you don't need your money for a long time, that money could go mostly into stocks to maximize returns. The bottom line is this: *When* you need your money should determine *how* you allocate your investments between stocks and bonds.



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152-Year Returns

Growth in stocks vs. bonds 1871 to 2022

	Real growth of $100,000				
RETURNS					
Highest returns	1 Year	5 Years	10 Years	15 Years	20 Years
Stocks	$79,780	$282,608	$397,063	$611,398	$1,092,667
Bonds	$23,764	$92,237	$119,849	$209,486	$295,415
Extra returns for stocks	+$56,016	+$190,371	+$277,213	+$401,913	+$797,252
Median returns					
Stocks	$7,393	$47,101	$112,165	$187,523	$308,811
Bonds	$2,401	$10,023	$19,953	$30,459	$49,129
Extra returns for stocks	+$4,992	+$37,078	+$92,212	+$157,064	+$259,681
RISKS					
Worst returns					
Stocks	-$35,025	-$46,196	-$33,289	-$25,053	$13,418
Bonds	-$13,636	-$37,256	-$30,164	-$34,979	-$29,995
Extra risks for stocks	$21,388	$8,940	$3,125	n/a	n/a
Extra risks for bonds	n/a	n/a	n/a	$9,926	$43,413
Chance of negative return					
Stocks	32%	14%	6%	1%	0%
Bonds	30%	26%	25%	20%	15%
Extra risks for bonds	-2%	12%	20%	19%	15%
Chance of worse returns					
Stocks	37%	26%	11%	3%	1%
Bonds	63%	74%	89%	97%	99%
Extra risks for bonds	26%	47%	78%	94%	98%

Source: Siegel, Shiller, CRSP, Cdn Institute of Acutaries, TSX, Bank of Canada.

Asset allocation

STOCKS VS. BONDS OVER THE PAST 152 YEARS

By Elaine Loo, Wealth Advisor

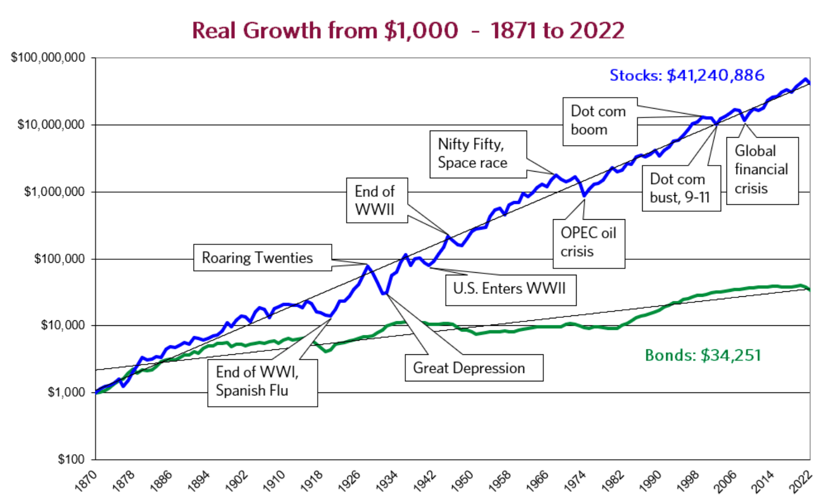
In Aesop's fable *The Tortoise and the Hare*, slow and steady wins the race. But is that really how it works in life? When it comes to investing, slow and steady can be a recipe for near-certain losses.

Reliable performance data first became available in 1871. So, let's look at stocks-versus-bonds returns in the 152 years since. Think of *The Tortoise and the Hare* as a story about asset allocation: of bonds, which appreciate slowly and appear reliable; and of stocks, which can appreciate strongly and quickly, but appear risky. Which is your best bet? The answer depends on what kind of race you're running.

The past 152 years have been wildly volatile: inflation, deflation, a deep depression, two global financial crises, explosive growth, two World Wars, embargoes, assassinations and worldwide pandemics. We often forget how frightening things seemed at such times. Although the world may seem scary now, it's likely that the period ahead won't be all that different from some of the periods we've experienced in the past. History repeats itself; you just don't know which part of the past you're going to get! But the past informs the future. By studying history, you can get a good idea of the range of possible outcomes going forward.

Data shows that, over the past 152 years, if you owned equal amounts of Canadian and U.S. stocks you would have enjoyed average annual growth of 9.5% (in Canadian dollars) for an inflation-adjusted (real) return of 7.4%. Over the same period, Canadian bonds averaged 4.5%, or real returns of just 2.4% per year.

Here's a graph showing 152 years of growth in stocks vs. bonds. If you started with $1,000 in each, you would now have over $41 million with stocks – but only about $34 thousand with bonds. Remember that these are in "real" dollars, that is, adjusted for inflation.



Source: Siegel, Shiller, CRSP, Cdn Institute of Acutaries, TSX, Bank of Canada.

Here's a table showing the average percentage growth in stocks vs. bonds over the past 152 years. The table also compares the differences in median total dollar growth over various time horizons.

152-Year Returns

Growth in stocks vs. bonds 1871 to 2022

	Average Nominal Returns	Average Real* Returns	Real growth from $100,000 1 Year	5 Years	10 Years	15 Years	20 Years
Stocks	9.5%	7.4%	$7,393	$47,101	$112,165	$187,523	$308,811
Bonds	4.5%	2.4%	$2,401	$10,023	$19,953	$30,459	$49,129
Inflation	2.1%						
Difference in growth ($)			+$4,992	+$37,078	+$92,212	+$157,064	+$259,681
Difference in growth	2.1x	3.1x	3.1x	4.7x	5.6x	6.2x	6.3x

Source: Siegel, Shiller, CRSP, Cdn Institute of Acutaries, TSX, Bank of Canada.

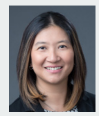
* "Real" returns are nominal returns after subracting inflation
** "Real growth from $100,000" for 5 to 20 years is the median real growth, showing the effect of compounding.

The average annual *real* returns from stocks were more than three times higher than those of bonds. However, because of compounding, the difference in returns grows to more than six times after 20 years: a profit of $308,811 for stocks vs. only $49,129 for bonds, on an initial $100,000 investment. So, the benefit from stocks grows as the time horizon gets longer.

Now you may be asking: But aren't stocks much riskier than bonds? Yes and no. The stock market is volatile in the short term, making stocks seem risky. But if you invest for the longer term, that is, more than five or 10 years, history shows that down markets have almost always been more than offset by up markets, giving reliable returns for stocks after inflation.

Inflation can actually make bonds *riskier* than stocks over the long term. Over five-year periods stocks did better than bonds 73% of the time; the chance of a negative return with bonds was nearly twice that of stocks. The average extra return for stocks was 35% higher, compared to only a 9% increase in the worst return. Over 10-year periods the worst return was about the same, and yet the median returns for stocks were over five times as high. Over 20-year periods, stocks beat bonds nearly every time and never failed to beat inflation. As well, stocks' median return was over six times that of bonds. By contrast, bonds lost to inflation 15% of the time, with the worst period being a loss of nearly 30% in real purchasing power. So, based on history, the longer your investment horizon, the less risky stocks are, and the riskier bonds become in comparison. At the same time, the extra returns from stocks vs. bonds grow dramatically.

The key takeaway here is that one type of asset isn't always better. How long your money is likely to be invested is critical in determining the right mix for you. If you only have a few years to invest, then most of your money should be in bonds. If you have savings earmarked for needs five to 10 years or more from now, consider investing more of those savings into stocks.



Elaine Loo is a Wealth Advisor for the Stan Clark Financial Team at CIBC Wood Gundy.

She is responsible for the day-to-day monitoring and maintenance of client accounts and investment portfolios.

Financial & Estate Planning

PREPARE FOR YOUR FUTURE SELF

By Tom Cowans, Wealth Advisor

When you're young and have your whole future ahead, who wants to think about getting old? Even when people ask where you see yourself in 10 years, that seems too far off. Yet it does pay to think of your future self. Have you given the idea any thought? Maybe it's time you should.

Because, as much as we don't like to think of aging, we will all one day be that future self.

Life expectancy has increased steadily around the world for the past 200 years. A child born today could likely live to be 100. This means each of us needs to have enough money to last – to keep us happy throughout our golden years.

Life Expectancy for 60-year-old

	Male	Female	Male/Female
Top 50% (average)	89	91	94
Top 25% (healthy)	94	96	98
Top 10% (over acheiver)	97	100	101

With such long time horizons to consider, we need to watch out for inflation. Even the price of a Big Mac has changed considerably over the last 20 years, increasing nearly 50%! Inflation has a huge negative effect over time – and money is only as good as what it can buy. People shouldn't fool themselves into thinking inflation won't significantly affect their wealth. Furthermore, all planning should be based on the real value of that wealth, that is, factoring in the effects of inflation.

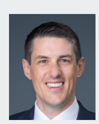
Over the past 100 years, inflation has averaged about 3%. At first glance, this might not seem significant. However, as you can see in the table below, 3% inflation over 10 years means a 26% loss in the real value of your wealth. And, over 30 years, inflation consumes 60% of your wealth.

Lots of people would shrug, "I'll let my future self worry about that." They're anticipating that their future self will earn and save more to compensate for any inflation, and/or to make up for their excessive spending right now. Rationalizing that they can pay it off later, these people may use debt to spend too much and buy beyond their means. Trust us, this is not a smart way to plan for your own future.

Life Expectancy for 60-year-old

Time	2% Inflation	3% Inflation	4% Inflation
10 Years	18% loss	26% loss	34% loss
20 Years	33% loss	46% loss	56% loss
30 Years	45% loss	60% loss	71% loss

You can help your future self rather by putting money away now and setting personal goals. Time is your friend when it comes to investing – the more time you have, the better your chance of achieving your goals. And studies show that people who write down their goals accomplish significantly more than those who don't. So, try it!



Tom Cowans is a Portfolio Manager and Wealth Advisor for the Stan Clark Financial Team at CIBC Wood Gundy.

SCFT Trivia

Play our trivia – support the cure!

For every correct entry we receive in our trivia contest, the Stan Clark Financial Team will contribute $1 to CIBC's "Run for the Cure" to raise money for breast cancer research. Each correct entry will also be entered into the draw for this month's prize. Email or phone in your entry today.

Answer all four questions to be entered into the draw for this month's prize. *Hint: You can find the answers inside this newsletter.*

1. The cluster illusion, our tendency to see meaningful patterns in a random jumble of information, may lead us to:
    a) Make financial decisions we think are savvy – without properly checking first.
    b) Perceive a winning streak without realizing the streak is a statistical anomaly.
    c) Detect promising trends in investments based on insufficient information.
    d) All of the above.

2. In investing, is *volatility* the same as *risk*?
    a) Yes, the terms can be used interchangeably.
    b) Yes, but only in the short term.
    c) Yes, but only in the long term.
    d) No. Volatility is the ups and downs, which, while uncomfortable, eventually cancel out. Risk is a permanent loss – the worst type, because you can't recover from it.

3. Performance data over the past 152 years shows that, if you owned equal amounts of Canadian and U.S. stocks, you would have enjoyed average annual growth of 9.5% (in Canadian dollars) for an inflation-adjusted (real) return of 7.4%. Over the same period, Canadian bonds averaged 4.5%, or real returns of just 2.4% per year.
    a) True b) False

4. Life expectancy has increased. For younger members of the workforce, this means:
    a) Spend your money freely and enjoy!
    b) Time is your friend when it comes to investing. Help your future self by starting to put money away now.
    c) Inflation has a huge negative effect over time, but again, why worry now?
    d) Sure, it's good to set goals. You'll do that – one day.

Email answers to: **stanclarkfinancialteam@cibc.ca** or call (604) 641-4361

One prize winner will be chosen by a draw from all those who submit correct answers. The draw will take place on March 31, 2023.

Trivia challenge runs March 1 - 30, 2023. No purchase necessary. There is one prize to be won. Simply complete the trivia questions correctly to be entered in the draw. Limit 1 entry per person.

Chances of winning depend on number of eligible entries and whether you correctly answer the trivia questions. Open to adult Canadian residents (excluding Quebec). For full challenge rules, write to: The Stan Clark Financial Team, CIBC Wood Gundy 400-1285 West Pender St, Vancouver, BC V6E 4B1.

CIBC WOOD GUNDY | The Stan Clark Financial Team
Where planning, investing and behavioral finance meet

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